

REMARKS/ARGUMENTS

The present amendment is submitted in an earnest effort to advance the case to issue without delay.

The specification has been amended to correct minor typographical errors.

Claim 1 has been amended to indicate that the bleaching compositions of this invention are based on molecular iodine. The phrase "or source thereof" has been deleted. Claim 1 has been further amended by specifying a pH range of from 4 to 9. Support is found in original claim 6 which now has been canceled.

Claim 13 finds support in Table 1, 2, 4 and 5-6. New claim 15 recites the absence of hypochlorite. Support is found in the specification at page 1 (lines 15-17) and reflective in the Examples which do not contain hypochlorite.

Claims 1-2, 11 and 12 were rejected under 35 U.S.C. § 102(b) as anticipated by GB 703 091 A. Applicant traverses this rejection.

GB '091 does not disclose the pH range of 4 to 9 presently claimed. Neither is there any disclosure that the textile subject of the bleaching process is a soiled textile carrying a stain. For these reasons, GB '091 would not anticipate the claims.

Claims 1, 9, 11 and 12 were rejected under 35 U.S.C. § 102(b) as anticipated by Jacquet et al. (US Patent 5,236,614). Applicant traverses this rejection.

Jacquet et al. discloses high pH systems. The disclosed microemulsion compositions require a pH of at least 12. See column 2, line 18. By contrast, claims of the present invention recite a pH ranging from 4 to 9. There is no disclosure by the reference of relatively low pH systems. Furthermore, this reference does not disclose molecular iodine. The Examiner has indicated the presence of periodate present as a stabilizer to prevent decomposition of hypochlorite. However, periodate is not molecular iodine and would not function equivalently. For these reasons, Jacquet et al. would not anticipate the present claims.

Claims 1-12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kaaret et al. (US Patent 6,211,131 B1) in view of Ahmed (US Patent 5,229,027) or Agostini (EP 688 857). Applicant traverses this rejection.

Two general types of bleach chemistry are applied to stain removal during the laundry process. Sodium hypochlorite is the older of the two systems. A problem with hypochlorite is the tendency for this rather harsh oxidizer to attack fabric dyes. Hypochlorite is also extremely aggressive against the integrity of the fabric itself.

Oxygen based bleaches are a more recent alternative to oxidative removal of stains in the laundry process. Peroxygen chemistry is less aggressive than hypochlorite, but thereby has performance shortcomings. In many countries where laundering is performed in relatively cold water, the peroxxygen materials are not very efficient. Low dosage and short wash cycles are other barriers to effectiveness.

Applicant has found that iodine may be used at surprisingly low levels against stained fabrics at relatively low concentrations to achieve significant cleaning. Furthermore, at the relatively low levels iodine itself does not discolor white fabrics.

In a further aspect of the present invention, applicant has found a critical range of pH. Attention is drawn to Example 6. Tables 5 and 6 reveal that within the range approximating pH 4 to 9, there is a significant stain removal activity, which at lower or higher pH diminishes in effectiveness. These results were unexpected.

Kaaret et al. is concerned with the old technology of hypochlorite bleaching. Even the Examiner has noted that this reference does not disclose any iodine source. Most certainly, this reference does not disclose iodine as an alternative bleach system to hypochlorite.

Ahmed was cited for teaching iodate as a stabilizer for hypochlorite bleach. If the disclosure of Ahmed would be incorporated into Kaaret et al., the result would be a primary reference that contains both hypochlorite as the bleaching agent and an iodate/iodine as a stabilizer for the hypochlorite. By contrast, the present invention focuses on iodine itself as a bleach system. The reference suggesting iodate/iodine as a stabilizing agent gives no direction to those skilled in the art that iodine is a bleach system. Indeed, a "stabilizing agent" is quite distant from that of an active bleach.

Furthermore, the pH of the systems described in Kaaret et al. are required to be greater than about 10. See column 4 (line 63). By contrast, the present invention claims pH range from 4 to 9. This range has been shown to provide surprisingly

effective results, and different from those of either higher or lower pH ranges. Similar high pH is disclosed in Ahmed. See column 12 (lines 5-8).

Agostini was cited particularly for teaching periodate in bleaching compositions with a pH ranging between 9 and 14. Yet unlike the presently claimed invention, the reference relies upon hypochlorite as the bleaching system. Although iodates are present to assist the hypochlorite, molecular iodine is not disclosed.

A combination of Kaaret et al. in view of Ahmed or Agostini would not render the instant invention obvious. Neither Kaaret nor Ahmed disclose the pH range of 4 to 9. Indeed, these references teach away from the present invention by requiring a pH substantially in excess of pH 9.

A combination of Kaaret et al. with Agostini (EP '857) would not render the instant invention obvious. Both are directed to hypochlorite as the major bleaching agent. By contrast, the present invention depends upon molecular iodine as the bleaching system. Neither of these references mentions molecular iodine. Consequently, the Examiner has failed to present a prima facie case of obviousness.

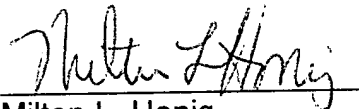
Claims 1-12 were rejected under 35 U.S.C. § 112, second paragraph. The Examiner required clarification as to the term "unit dose". This term "unit dose" is defined in the paragraph bridging pages 3 and 4. Therein it states: "A unit dose is used herein as a particular amount of the bleaching composition used for a type of wash. The unit dose may be in the form of the defined volume of powder, granules or tablet." There is nothing indefinite about the term.

Clarification was requested with respect to the meaning of "iodine or a source thereof in the range from 0.0005 wt % to 5 wt %". More precisely, it appears clarification was needed with respect to basis for the wt % and the term "source thereof".

Applicant has amended claim 1 to identify the wt % as related to the bleaching composition weight. Further, applicant has deleted the term "or source thereof".

In view of the foregoing amendment and comments, applicant requests the Examiner to reconsider the rejection and now allow the claims.

Respectfully submitted,



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